

Notice of Allowability

Application No.

10/633,580

Examiner

Ly D. Pham

Applicant(s)

TANISHIMA ET AL.

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8-25-05.
2. ☒ The allowed claim(s) is/are 3-5 and 12.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

**HUAN HOANG
PRIMARY EXAMINER**

DETAILED ACTION

1. Applicants' Amendment filed August 25, 2005 has been entered. Claims 1 and 2 have been canceled. Claims 3 and 4 have been amended. Claims 6 – 11 have been withdrawn from consideration. New claim 12 has been added.
2. This application is in condition for allowance except the following formal matter.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Sam Huang (reg. 48,430) on September 15, 2005.

The application has been amended as follows:

- i. **In claim 12**, replace lines 5 – 6 with "a redundant memory cell array coupled with the regular memory cell array;"
- ii. **Claims 6 – 11 are further canceled** for being drawn to non-elected invention. Election was made without traverse in the Response to the Election/Restriction requirement filed March 18, 2005. Applicants have the right to file divisional application on the subject matter covered by these claims.

Allowable Subject Matter

4. Claims 3 – 5 and 12 are allowed.
5. The following is an examiner's statement of reasons for allowance:

The prior arts fail to teach or suggest a memory circuit comprising, in combination:

a regular memory cell array having a plurality of redundant replacement units;
a redundant memory cell array coupled with the regular memory cell array;
a redundant replacement memory for storing data on the redundant replacement unit having the failed portion in the regular memory cell array; and

pre-charge circuit having pre-charge switches for redundant replacement units and the redundant memory cell array respectively, wherein

depending on the data stored in the redundant replacement memory, the redundant replacement unit having the failed portion in the regular memory cell array is or is not replaced with the redundant memory cell array,

if a defect does not exist in the regular memory cell array, the pre-charge switches of the plurality of redundant replacement units are enable, and the pre-charge switch of the redundant memory cell array is not enabled, and

if a defect exists in the regular memory cell array, the pre-charge switch of the redundant replacement unit having the defect is disabled and the pre-charge switches of the remaining redundant replacement units and the redundant memory cell array are enabled.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


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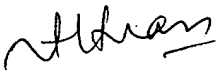
Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
8. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02(b)).
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly D. Pham whose telephone number is 571-272-1793. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoai Ho can be reached on 571-272-1777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ly D Pham 
September 13, 2005


HUAN HOANG
PRIMARY EXAMINER